

**IQ**

# Mechanical Comparison Between Original And Updated (Ma2085) Camera

June 9, 2021

# Top Level Assembly

Updated



Original

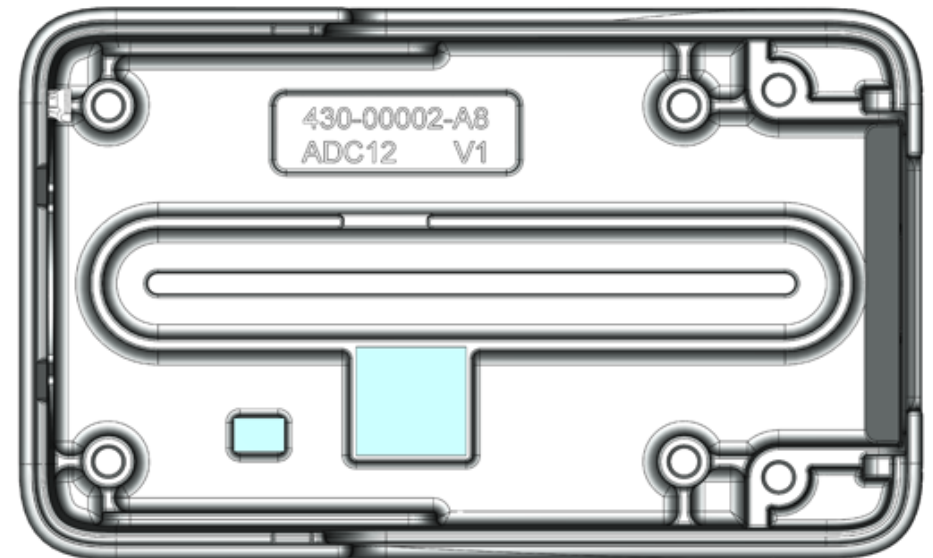
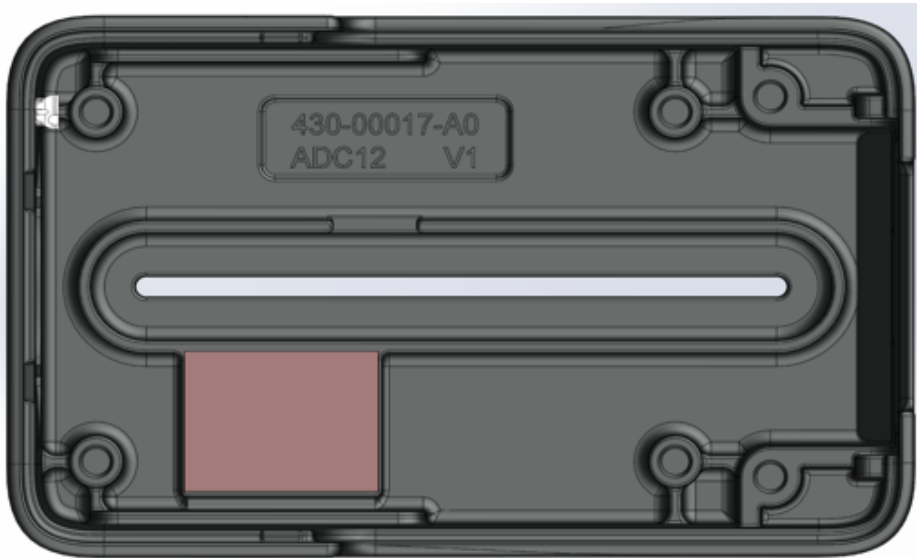


Identical Outer Geometry  
Identical Electrical Interface And  
Specs

# Main Body

Updated

Original



Identical Outer Geometry

- Same Tooling Cavity

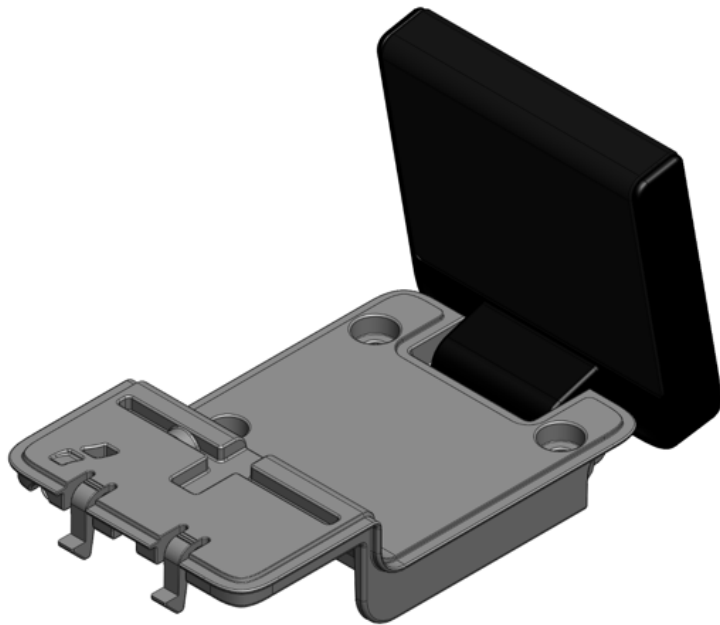
Same Material And Paint

Updated Internal Geometry

- Cooling Interface Size And Location
- Gap Pad Shape And Quantity
- Screw Tower Height

# Foot Assembly

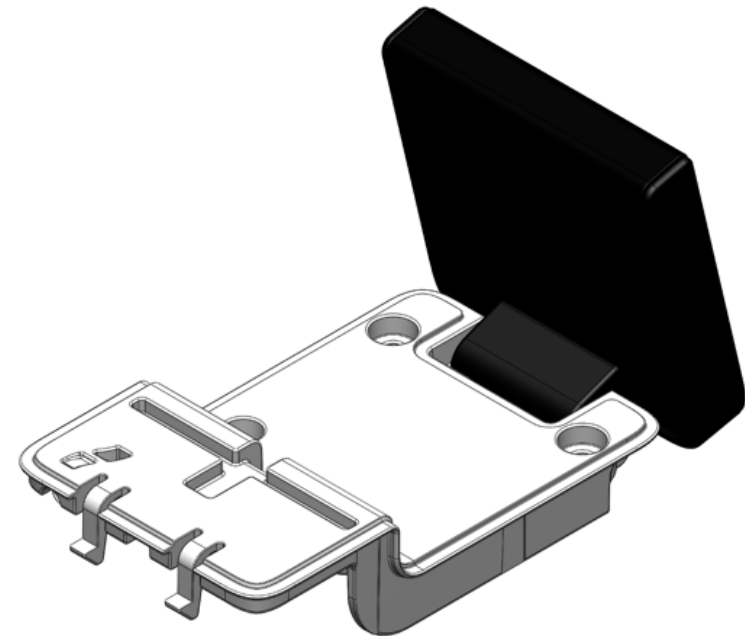
Updated



Same Foot, Hinge And Foot Soft Cover  
Same Interface Towards Main Body  
Same Outer Geometry

- After Assembly Of Main Soft Cover

Original



Updated Hard Cover (Details On Next Slide)

# Hard Cover

Updated

Original

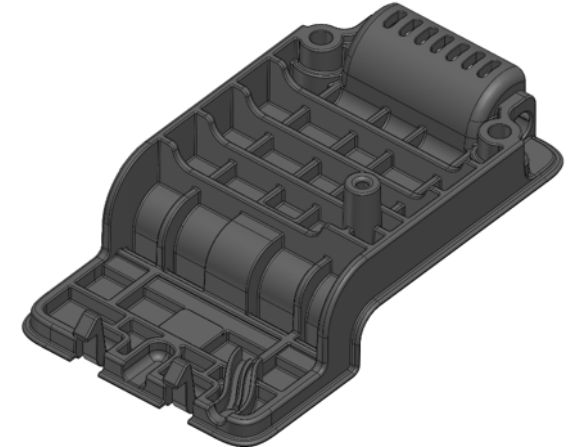
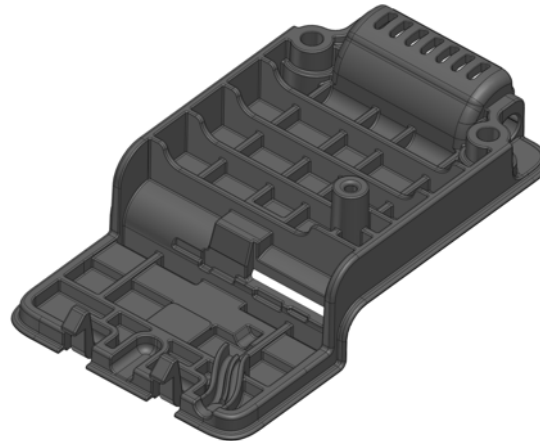
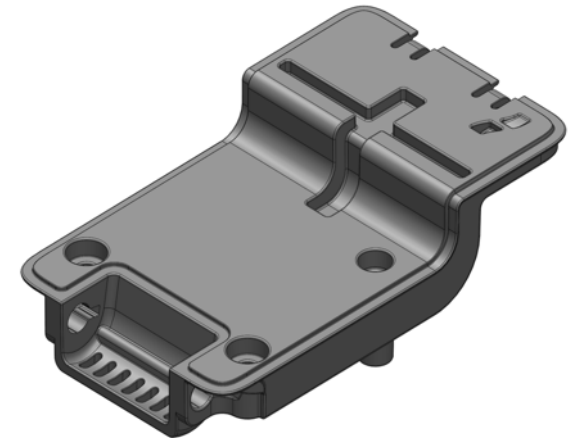
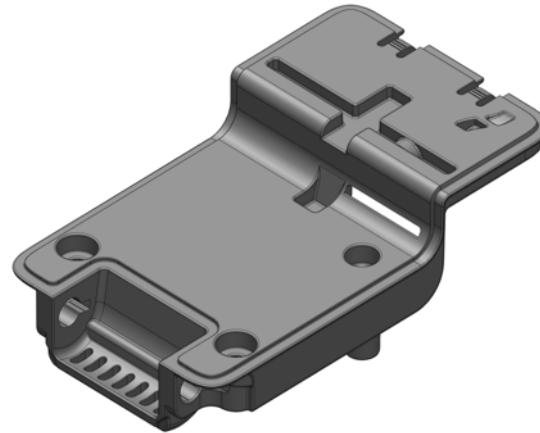
## Same Material

- Flammability Rating  
UL-94 V-1

## Geometry Updates To Fit

### Second Source Lens Module

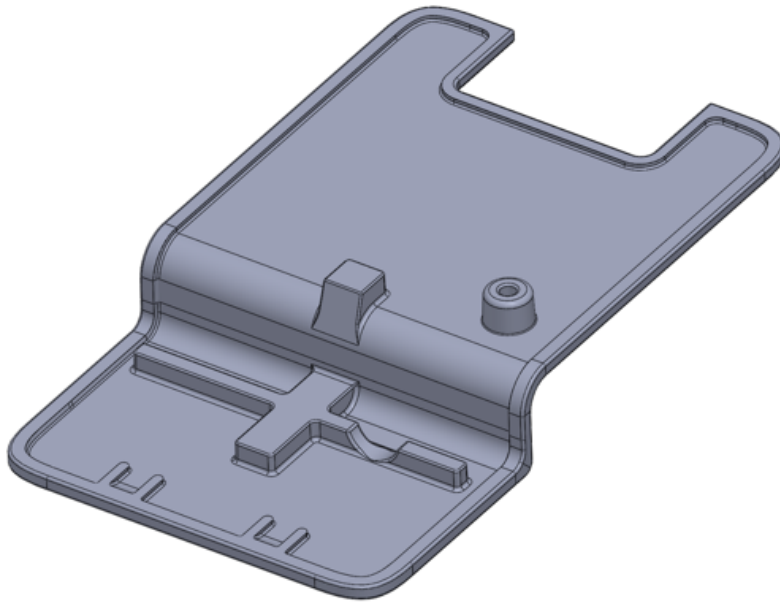
- Slot Through Part  
(Covered By Soft Cover  
In Final Assembly)
- Removed Material On  
Side Walls
- Modified Interface  
Towards Soft Cover



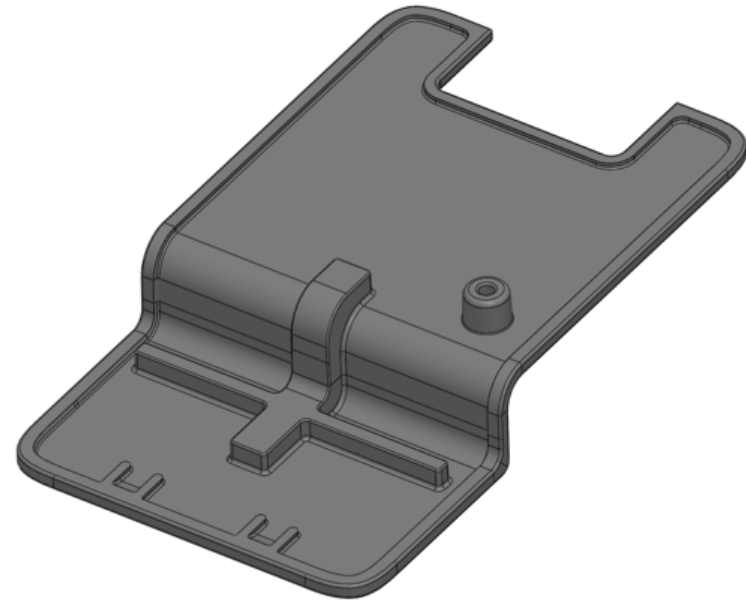
# Soft Cover

Updated

Original



Same Material (UL-94 V-1)  
Same Outer Geometry



Updated Interface Towards Hard Cover

# Main PCB

Updated

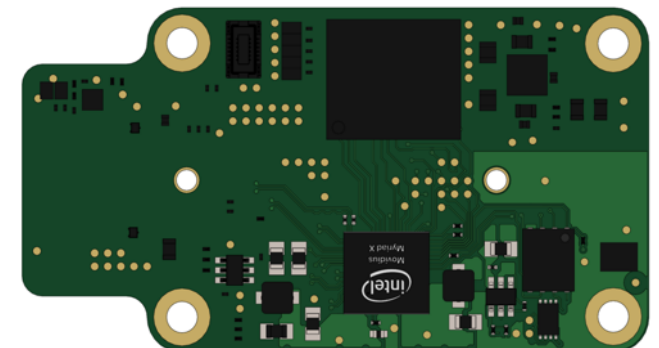
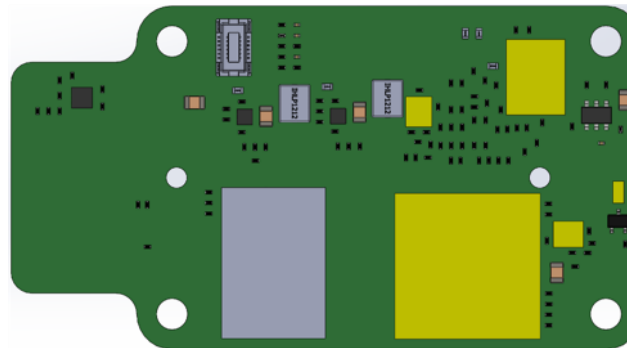
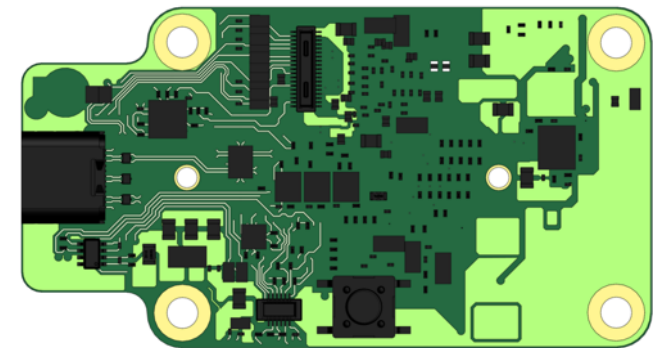
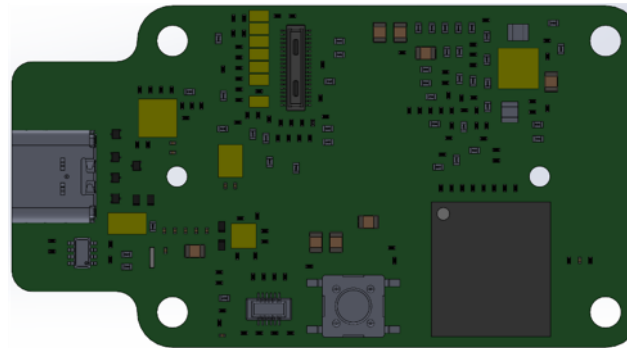
Original

Same PCB Outline  
Same Mounting To Main Body  
Same Type Of PCB Material  
Identical Connector Location

Same Electrical Rating (5 V  $\Rightarrow$  900 ma)

Reduced PCB Thickness

- 1.6 mm To 1.375 mm



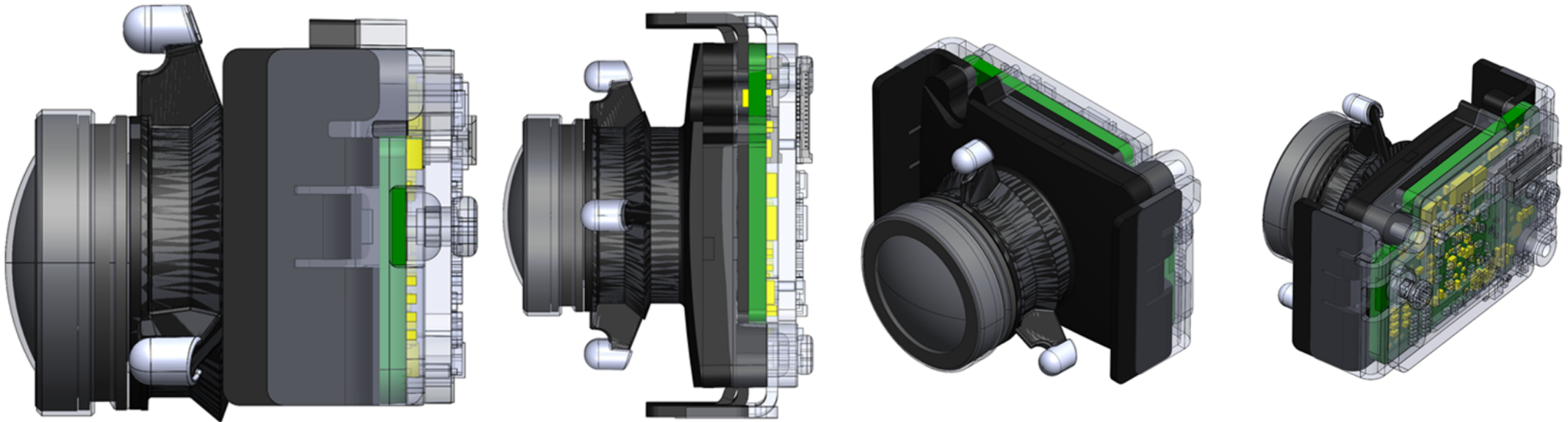
# Lens Module

An Additional Second Source Have  
Been Introduced

- Same Interface Towards Main Body
- Same Attachment By Lens Cap
- Same Interface Towards Mainboard
- Same Sensor Board

Difference Between First And Second  
Source

- Second Source Is 2.7 mm Longer
- Different Construction Of Optics



The First And Second Source Are Layered In These Illustrations.  
Second Source Is Shown As Transparent.

# Sensor FPC

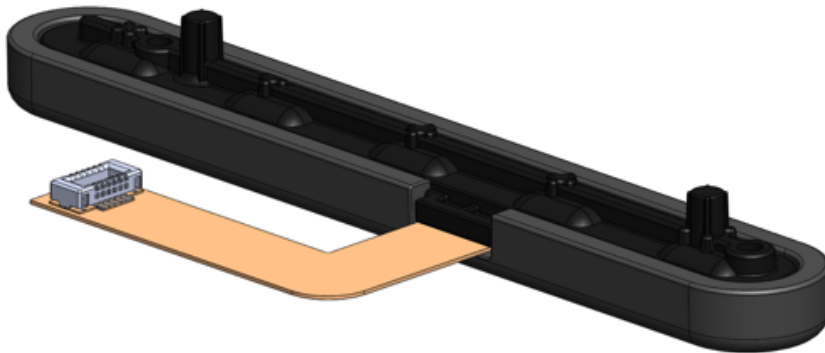
Same Material

Same Interface To Mainboard And  
Sensor Board

Reduced Length To Fit Both Lens  
Modules

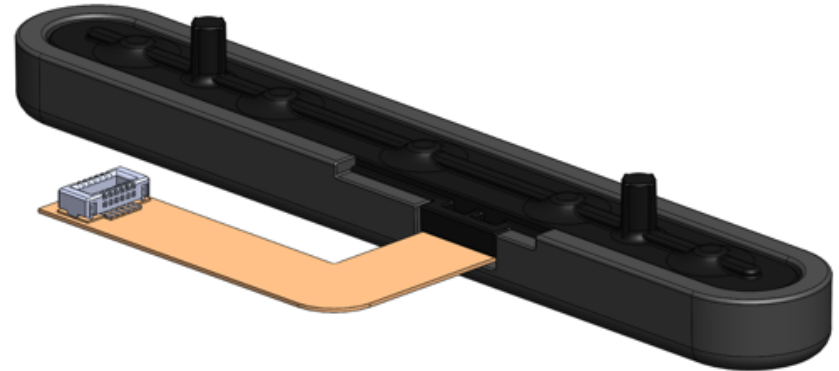
# Microphone Array Module

Updated



Same Microphone FPC  
Same Materials For All Components  
Same Interface Towards Main Body

Original



Updated Mounting Pin Location

- Updated Hole Location On Mainboard PCB